

## Product datasheet for SC114104

### COQ3 (NM\_017421) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COQ3 (NM_017421) Human Untagged Clone
Tag:	Tag Free
Symbol:	COQ3
Synonyms:	bA9819.1; DHHBMT; DHHBMTASE; UG0215E05
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC114104 sequence for NM_017421 edited (data generated by NextGen Sequencing)

```

ATGTGGAGTGGCGTAAGCTGGGCTCCTCCGGGGTTGGTTTTTAAAGAGTGTGGGCGCT
GGAGGCTGTAATACAAAAGCTGCGCGTCCCTTAATTTCCCTCGGCGGTTTATGTGAAGAAC
CAGCTCAGTGGGACTCTACAGATTAACCAGGGGTTTTCAATGAATACAGAACCATATGG
TTCAAATCCTACAGGACGATCTTTTCTGTTTGAACAGAATAAAGAGTTTCAGGTACCCT
TGGGCGAGACTGTACAGTACTTCCCAAACCACTGTCGACAGCGGTGAGGTAAAAACCTTC
TTGGCCCTGGCTCACAAATGGTGGGATGAACAAGGAGTATATGCACCTCTTCATTCCATG
AATGACCTGAGGGTGCCATTTATTAGGGACAATCTTCTGAAAACAATTCCTAATCACCAG
CCAGGAAAACCTTTGTTGGGATGAAGATTCTTGACGTTGGCTGTGGTGGTGGGCTGTTA
ACTGAACCTCTAGGGCGGCTTGGGGCTTCAAGTTATTGGAATCGACCCTGTGGATGAGAAC
ATTAACACAGCACAATGCCATAAATCATTGATCCAGTCCCTGGATAAGAGAATAGAGTAC
AGAGTGTGTTCCCTGGAAGAGATTGTGGAAGAGACTGCAGAAACATTTGATGCTGTTGTA
GCTTCTGAAGTTGTAGAACATGTGATTGATCTAGAAACATTTTTACAGTCTGCTGTCAA
GTGTTAAACCCGGTGGTTCTTTATTCACTACTACAATCAACAAAACACAACCTTTCCTAT
GCCTTGGGAATTGTTTTTTCAGAGCAAATTGCAGGTATTGTACCAAAAAGGTAATCATA
TGGGAGAAGTTTGTTCACCTGAAACACTAGAGAGCATTCTGGAATCAAATGGTCTGTCA
GTTCAAACAGTGGTAGGAATGCTCTATAACCCCTTCTCAGGTTACTGGCATTGGAGTGAA
AATACCAGCCTTAACATATGCAGCTCATGCTGTGAAATCCAGGGTCCAGGAACACCCAGCC
TCTGCTGAGTTTGTTTTAAAGGGAGAAAACAGAAGAGCTCCAAGCTAATGCCTGCACCAAT
CCAGCTGTGCATGAAAAGCTGAAGAAATGA

```

Clone variation with respect to NM\_017421.3  
814 a=>g;985 t=>c



[View online »](#)

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_017421 unedited  
 TTTGTAATACGACTCACTATAGGGCGGCCGNGATTTCGGCACGAGGGTCGCGATGTGGAG  
 TGGCCGTAAAGCTGGGCTCCTCCGGGGTGGTTTTAAGAGTGTGGGCCTGGAGGCTG  
 TAATACAAAAGCTGCGCGTCCCTTAATTTCTCGGCGGTTTATGTGAAGAACCAGCTCAG  
 TGGGACTCTACAGATTAACCAGGGGTTTCAATGAATACAGAACCATATGGTTCAAATC  
 CTACAGGACGATCTTTCTGTTTGAACAGAATAAAGAGTTTCAGGTACCCTTGGGCGAG  
 ACTGTACAGTACTCCCAAACCACTGTCGACAGCGGTGAGGTA AAAACCTTCTTGGCCCT  
 GGCTCACAAATGGTGGGATGAACAAGGAGTATATGCACCTCTTCATTCCATGAATGACCT  
 GAGGGTGCCATTTATTAGGGACAATCTTCTGAAAACAATTCCTAATCACCAGCCAGGAAA  
 ACCTTTGTTGGGGATGAAGATTCTTGACGTTGGCTGTGGTGGTGGGCTGTTAACTGAACC  
 TCTAGGGCGGCTTGGGGCTTCAAGTATTGGAATCGACCCTGTGGATGAGAACATTA AAC  
 AGCACAATGCCATAAATCATTGATCCAGTCTGGATAAGAGAATAGAGTACAGAGTGGT  
 GTTCCCTGGAAGAGATTGTGAAGAGACTGCAGAAACATTTGATGCTGTTGTAGCTTCTG  
 AAAGTGTAGAACATGTGATTGATCTAGAACATTTTACAGTGTCTGTCAAGTGTAAA  
 ACCCGGTGGTCTTTATTCACTACATCAACANNACACNACTTCTATGCTTNGNG  
 NATNGTTTTTTCAGAGCAAATGCAGGATTGACCAAAAAGTACTCTACATGGGAGAAGTTG  
 NTTCACTGAACCTANAGACATCTGGATCAATGGTCTGCAGTCAACAG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_017421 unedited  
 TATGGACCGCGGCCGAATCTAGNATCGAGTTTTTTTTTTTTTTTTTCCAGGTTTTAG  
 CCCTTTTTATTGACCTTCTTTTCTTCATGATTCTCTCAAGGATAAATTGTACATTTCT  
 TGTATTTGAAAACATCAGATATCCAAGCCATTA TACTATAGTTCTCAGAAACAATTCATT  
 TCTTCAGCTTTTTCATGCACAGCTGGATTGGTGCAGGCATTAGCTTGGAGCTCTTCTGTTT  
 CTCCTTTAAAACAACTCAGCAGAGGCTGGGTGTTCTGGACCCTGGATTTACAGCAT  
 GAGCTGCATAGTTAAGGCTGGTATTTTCACTCCAATGCCAGTAACCTGAGAAGGGGTTAT  
 AGAGCATTCTACCACTGTTTGAAGTGCAGACCAATTTGATTCCAGAATGCTCTCTAGTG  
 TTTTCAGGTGAAACAACTTCTCCCATGTATGAGTACCTTTTGGTACAATACCTGCAATTT  
 GCTCTGAAAAACAATCCCAAGGCATAGGAAAGTTGTGTTTTGTTGATTGTAGTAATGA  
 ATAAAGAACACCGGGTTTTAACTTGCAGCAGCACTGTAAAAATGTTTCTAGATCAA  
 TCACATGTTCTACAACCTCAGAAGCTACAACAGCATCAAATGTTTCTGCAGTCTCTTCCA  
 AATCTCTCCAGGGAACCACTCTGTACTCTATTCTTTATCCAGGACTGGATCAAATGAT  
 TTATGGCATTGCGCTGGTTTATTGTTCTATCCACAGGGCCGATTCCAATACCTGAAGC  
 CCCAAGCCGCCCTAAAGGTCATTTAACAGCCCCCCCCACAGCCACGGTCAGAATTTTCA  
 TCCCCACACAGGCTTCTCGGGCTGCGGAATAGGATATGTTTCAAAC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_017421

**Insert Size:**

1220 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:**

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_017421.2</a> , <a href="#">NP_059117.2</a>
<b>RefSeq Size:</b>	1279 bp
<b>RefSeq ORF:</b>	1110 bp
<b>Locus ID:</b>	51805
<b>UniProt ID:</b>	<a href="#">Q9NZJ6</a>
<b>Cytogenetics:</b>	6q16.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Ubiquinone and other terpenoid-quinone biosynthesis
<b>Gene Summary:</b>	<p>Ubiquinone, also known as coenzyme Q, or Q, is a critical component of the electron transport pathways of both eukaryotes and prokaryotes (Jonassen and Clarke, 2000 [PubMed 10777520]). This lipid consists of a hydrophobic isoprenoid tail and a quinone head group. The tail varies in length depending on the organism, but its purpose is to anchor coenzyme Q to the membrane. The quinone head group is responsible for the activity of coenzyme Q in the respiratory chain. The <i>S. cerevisiae</i> COQ3 gene encodes an O-methyltransferase required for 2 steps in the biosynthetic pathway of coenzyme Q. This enzyme methylates an early coenzyme Q intermediate, 3,4-dihydroxy-5-polyprenylbenzoic acid, as well as the final intermediate in the pathway, converting demethyl-ubiquinone to coenzyme Q. The COQ3 gene product is also capable of methylating the distinct prokaryotic early intermediate 2-hydroxy-6-polyprenyl phenol.[supplied by OMIM, Mar 2008]</p>